

**JOB FLOW PETRI NET AND CONTROLLING MECHANISM  
FOR PARALLEL PROCESSING**

**ABSTRACT**

The present disclosure provides a job flow system for use in a manufacturing environment, such as a semiconductor fab. The job flow system includes a plurality of sequence-related jobs associated with the manufacturing and a computer-controlled Petri Net structure. The Petri Net structure includes a plurality of agents associated with each of the sequence-related jobs. The Petri Net structure also includes a plurality of application processes to be performed by the agents, one or more description files, and a PN Center for loading the one or more description files and activating a first agent to perform one or more of the application processes in response to the one or more description files and in response to process status information from application processes.